

## COURSE 3, TUTORIAL 6

# AN OVERVIEW OF THE NSF SBIR/STTR SOLICITATION PROCESS



The National Science Foundation typically publishes two SBIR/STTR solicitations a year. One is published in March, with a June deadline, and the other is published in September, with a December deadline. Although the SBIR and STTR programs are frequently discussed in tandem, at NSF these are separate solicitations with similar release and due dates. The SBIR and STTR Phase I solicitations can be downloaded from NSF's website. The topics and subtopics are available in a separate document. In addition, there are various tools available throughout NSF's website to assist new applicants.

At the beginning of the NSF SBIR solicitation is a section entitled "Important Information and Revision Notes". Here NSF mentions that it recently has increased the size of its Phase I awards from \$150,000 to \$225,000. The award duration has also been increased from 6 months to between 6 and 12 months. Proposers are asked to specify the requested duration of their Phase I work. In this section NSF also reminds proposers of the required registrations. In addition to Dun and Bradstreet, the System for Award Management, and the Small Business Administration Company Registry, potential applicants are instructed to register with the NSF FastLane. This is the unique mechanism through which proposals are submitted to NSF. One is cautioned that these registrations take time, and if left to the last minute, delays could jeopardize proposal submission.

The solicitation guidelines are fairly short – about 15 pages in

fact. The guidelines highlight information that you may have seen with other agencies – but there is a very different flavor

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to the NSF solicitations. NSF is a granting agency and provides considerable latitude to the proposer. It seeks cutting-edge, high-risk, high quality research and development projects that will transform scientific discovery into commercial and/or societal benefit.

### NSF TOPICS

The topics conform to the investment sector's interests. NSF clearly states in the topics document that this list should be considered as examples and does NOT represent an exhaustive list of topics and subtopics. The NSF SBIR/STTR program encourages proposals in all areas of science and engineering and rarely rejects proposals for lack of a topical fit with the agency. Therefore, an exact fit into one of these topics or subtopics is not required. In order to gauge if a potential project meets NSF's intellectual merit and broader/commercial impact



criteria, potential applicants are encouraged to reach out to the Cognizant NSF Program Officer at any time before and during the release of a solicitation. It is suggested that you prepare a two page executive summary to e-mail to the Program Director in advance of contacting him or her by phone. Be aware, that responsiveness of Program Directors will be somewhat limited during the 2 weeks that lead up to the solicitation deadline – so you are encouraged to contact the cognizant Program Director early. Please send your executive summary to only one Program Director at a time – rather than sending to multiple individuals. Guidelines for the Executive Summary are available on the NSF website.

### **IS YOUR RESEARCH INNOVATIVE?**

Sometimes it may be hard for an individual to determine if the proposed research is truly innovative and if it shows the promise of high commercial and societal impact. To that end, NSF provides the following guidelines. It is suggested that in formulating your concept and reviewing the scientific and market literature, you ask yourself:

- » Has this ever been attempted and/or successfully done before?
- » Are there still technical hurdles that the NSF-funded R&D work could overcome?
- » Does this project have the potential to disrupt the targeted market segment? - that's a good thing by the way
- » Does the proposed product/service have good product-market fit as validated by customers? - in other words, is there a verified need
- » Does the proposed project offer the potential for societal impact?

### **NUMBER OF SUBMISSION IS LIMITED**

In the Award Information section, NSF presents a number of interesting limits. An organization may submit no more than two Phase I proposals in total during a cycle, which is defined as this SBIR Phase I solicitation and the concurrent STTR Phase I solicitation. For example, an organization may submit one (1) SBIR Phase I and one (1) STTR Phase I proposal, two (2) SBIR Phase I proposals, or two (2) STTR Phase I proposals during this cycle. These eligibility constraints will be strictly enforced. In the event that an organization exceeds this limit, the first two proposals received will be accepted, and the remainder will be returned without review. No exceptions will be made. The submission of the same project idea to both this SBIR Phase I solicitation and the concurrent STTR Phase I solicitation is strongly discouraged. In this way NSF assures that it can engage a greater number of new applicants.

NSF provides an interesting list of Do's and Don'ts in the Proposal guidelines. Here are a few of the Don'ts. Don't submit your proposal late – it will not be reviewed. Don't submit a proposal that lacks sufficient technical/commercial potential substance to justify review; which does not contain research proposed in science, engineering, or education and contains unacceptable objectives.

Remember you do have the opportunity to vet the project concept with the cognizant Program Directors in advance of submitting your proposal – so make sure that you take advantage of this. Make sure that you only upload documents to the Supplementary Documents section that NSF has identified as being acceptable. One type of supplemental document that is worthwhile to highlight is Letters of Support for the Technology. Such letters are optional and up to three letters may be submitted. Letters of support should demonstrate that the company has initiated dialogue with relevant stakeholders (potential customers, strategic partners or investors) for the proposed innovation and that a legitimate business opportunity may exist should the technology prove feasible.

### **NSF EVALUATION PROCESS AND REVIEW CRITERIA**

The proposal guidelines clarify how NSF proposals are processed and reviewed. As with other agencies there is an administrative review process at the outset to assure that proposals meet NSF's requirements. Those that meet the criteria are carefully reviewed by an NSF Program Officer with relevant technical and business/entrepreneurial expertise, and also by three to ten other persons outside NSF either as ad hoc reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with oversight of the review process. Proposers are also invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source of information in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply to the technical aspects of the proposal, and also to the way in which the project may impact the business case. To that end, reviewers will be asked to evaluate all proposals against two criteria: Intellectual Merit and Broader Impacts. The Intellectual Merit criterion concerns the technical risk and innovation inherent in the proposed research, while the Broader Impacts criterion encompasses the potential to contribute to the achievement of specific, desired commercial and societal outcomes.

If you are interested in obtaining research and development funding to help translate innovative, high-impact technology into commercialization outcomes, be sure to explore the NSF SBIR and STTR solicitations.

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#### **FastLane Help Desk**

**1-800-673-6188** (available 7am to 9pm Eastern time).